

Practice 1 – Dollar Hedged

Time to put theory into practice.

The aim here is to plot 2 types of structures: 1) Spread of a spread and 2) Spread 2 Groups of Assets

Question Info

You have been given the prices of 5 fictional stocks in the `fakestockdata.csv`:

- StockA
- StockB
- StockC
- StockD
- StockE

Qn 1

Plot the spread of A and B against the spread of C and D.

In other words, chart $(A-B) - (C-D)$

Use the dollar hedging method. I.e. assume that we trade the same dollar amount for longs and short.

Eg. We long \$1 of A, short \$1 of B, long \$1 of C, and short \$1 of D.

Assume the data is clean (no missing or NA data points).

Hints on the next page.

Qn 2

Chart the spread of $(A+B+C)$ vs $(E+D)$

Use the dollar hedging method. I.e. assume that we trade the same dollar amount for longs and short.

Eg. We long \$1 of A+B+C combined (\$0.33 for each stock), and short \$1 of D and E combined (\$0.50 for each stock).

Assume the data is clean (no missing or NA data points).

Hints on the next page.

Qn 1 hints:

Steps:

1. Import the stock prices
2. Convert the Date column to a datetime format (optional step)
3. Normalise the data so that the first data point is 1
4. Plot all stocks (optional step)
5. Create the spread of A-B
6. Create the spread of C-D
7. Create the spread of $(A-B)-(C-D)$
8. Plot $(A-B)-(C-D)$

Qn 2 hints:

Steps:

1. Import the stock prices
2. Convert the Date column to a datetime format (optional step)
3. Normalise the data so that the first data point is 1
4. Plot all stocks (optional step)
5. Create an index to represent $(A+B+C)$
6. Create an index to represent $(D+E)$
7. Plot $(A+B+C)-(D+E)$